

ABSTRACT

There is a sensor element (24) for an electronic sensor device (20). The sensor element (24) may have a substrate (43), a pair of proof masses (34a, 34b), a set of drive beams (44), and at least one base beam (46). The pair of proof masses (34a, 34b) are suspended above the substrate (43) and attached to the substrate (43) at fixed anchor points (50). The set of drive beams (44) are positioned between the proof masses (34a, 34b) and the anchor points (50). Each drive beam (44) has a first longitudinal body portion (62) that extends in a first direction and a first flexible spring member (64) that extends along a second direction. The base beam (46) interconnects the set of drive beams (44) and has a second longitudinal body portion (72) and a second flexible spring member (74). The second longitudinal body portion (72) extends along the second direction and the second flexible spring member (74) extends along the first direction. The first and second flexible spring members (64, 74) may be serpentine in shape, such as folded beam-columns or wrinkle springs.

15